## PATIENT EDUCATION HANDOUTS

# **High Blood Pressure (Hypertension)**

#### **Overview**

What is high blood pressure?

Blood pressure is a measure of how hard the blood pushes against the walls of your arteries as it moves through your body. It's normal for blood pressure to go up and down throughout the day, but if it stays up, you have high blood pressure. Another name for high blood pressure is hypertension.

When blood pressure is high, it starts to damage the blood vessels, heart, and kidneys. This can lead to <u>heart attack</u>, <u>stroke</u>, and other problems. High blood pressure is called a "silent killer," because it doesn't usually cause symptoms while it is causing this damage.

Your blood pressure consists of two numbers: <u>systolic and diastolic</u>. Someone with a systolic pressure of 120 and a diastolic pressure of 80 has a blood pressure of 120/80, or "120 over 80."

- The systolic number shows how hard the blood pushes when the heart is pumping.
- The diastolic number shows how hard the blood pushes between heartbeats, when the heart is relaxed and filling with blood.

Adults should have a blood pressure of less than 120/80. High blood pressure is 140/90 or higher. Many people fall into the category in between, called prehypertension. People with prehypertension need to make lifestyle changes to bring the blood pressure down and help prevent or delay high blood pressure.

## What causes high blood pressure?

In most cases, doctors can't point to the exact cause. But several things are known to raise blood pressure, including being very overweight, drinking too much alcohol, having a family history of high blood pressure, eating too much salt, and getting older.

Your blood pressure may also rise if you are not very active, you don't eat enough potassium and calcium, or you have a condition called insulin resistance.

### What are the symptoms?

High blood pressure doesn't usually cause symptoms. Most people don't know they have it until they go to the doctor for some other reason.

Without treatment, high blood pressure can damage the heart, brain, kidneys, or eyes. This damage

causes problems like <u>coronary artery disease</u>, stroke, and <u>kidney failure</u>.

Very high blood pressure can cause headaches, vision problems, nausea, and vomiting. Malignant high blood pressure (<u>hypertensive crisis</u>), which is blood pressure that rises very fast, can also cause these symptoms. Malignant high blood pressure is a medical emergency.

### How is high blood pressure diagnosed?

Most people find out they have high blood pressure during a routine doctor visit. For your doctor to confirm that you have high blood pressure, your blood pressure must be at least 140/90 on three or more separate occasions. It is usually measured 1 to 2 weeks apart.

You may have to check your blood pressure at home if there is reason to think the readings in the doctor's office aren't accurate. You may have what is called <a href="white-coat hypertension">white-coat hypertension</a>, which is blood pressure that goes up just because you're at the doctor's office. Even routine activities, such as attending a meeting, can raise your blood pressure. So can commuting to work or smoking a cigarette.

#### How is it treated?

Treatment depends on how high your blood pressure is, whether you have other health problems such as diabetes, and whether any organs have already been damaged. Your doctor will also consider how likely you are to develop other diseases, especially heart disease.

You can help lower your blood pressure by making healthy changes in your lifestyle. If those lifestyle changes don't work, you may also need to take pills. Either way, you will need to control your high blood pressure throughout your life.

- If you have prehypertension, your doctor will likely recommend lifestyle changes. These may include losing extra weight, exercising, limiting alcohol, cutting back on salt, quitting smoking, and eating a low-fat diet that includes more fruits, vegetables, whole grains, and low-fat dairy foods.
- If you have high blood pressure without any organ damage or other risk factors for heart disease, your doctor may recommend that you take medicine in addition to making lifestyle changes.
- If you have high blood pressure and have some organ damage or other risk factors for heart disease, you may need to try various combinations of medicines in addition to making big lifestyle changes.

Most people take more than one pill for high blood pressure. Work with your doctor to find the right pill or combination of pills that will cause the fewest side effects.

It can be hard to remember to take pills when you have no symptoms. But your blood pressure will go back up if you don't take your medicine. Make your pill schedule as simple as you can. Plan times to take them when you are doing other things, like eating a meal or getting ready for bed.

# What can you do to prevent high blood pressure?

There are six lifestyle changes you can make to help prevent high blood pressure:

- Lose extra weight.
- Eat less salt.
- Exercise.
- Limit alcohol to 2 drinks a day for men and 1 drink a day for women and lighter-weight men.
- Get 3,500 mg of potassium in your diet every day. Fresh, unprocessed whole foods have the most

- potassium. These foods include meat, fish, nonfat and low-fat dairy products, and many fruits and vegetables.
- Follow the DASH eating plan (Dietary Approaches to Stop Hypertension). This diet is rich in fruits, vegetables, and low-fat dairy products and is low in fat.

Author: Robin Parks, MS Last Updated: April 24, 2007

Medical Review: <u>Caroline S. Rhoads, MD - Internal Medicine</u>
<u>Robert A. Kloner, MD, PhD - Cardiology</u>
<u>Ruth Schneider, MPH, RD - Diet and Nutrition</u>

Reviewed 9 June 2008